CHAPTER-3
LAND AND ENVIRONMENT

Q.1 Give the area and location of Pakistan.

Ans: Name:

The full name of Pakistan is Islamic Republic of Pakistan

Area:

It covers an area of 796,096 Square kilometers.

Introduction:

Pakistan is located in the south of the Continent of Asia. It is a country having fertile land, lofty plains, rivers and beautiful valleys

Q.2 Identify the importance of location of Pakistan.

Ans: Pakistan is a vast country which, in the south, stretches from the coasts of The Arabian Sea and Deltaic Plains of the River Indus to the high mountain ranges in the north.

Rivers:

The eastern and southern part is covered with the river plains whereas western and northern part consists of many high mountain ranges.

Temperature:

On the basis of temperature, there are such areas-in Pakistan, where it remains either hot or cold throughout the year. That's why the climate of Pakistan exhibits considerable seasonal variations.

Plains:

The plains here are famous for their fertility and high agricultural production. Almost all types of its fruits are grown here which are considered among the best in the world with respect to taste.

Ideal Environment:

Pakistan is fortunate because Allah has blessed it with ideal physical environment. Physical environment have significant effects on the economic, social cultural and other activities of the people living there. Physical environment comprises location, relief features and climate etc.

Q.3 Give an account of Physical Features of Pakistan.

Ans: Physical Features of Pakistan:

Pakistan is divided into three major parts with respect to Physical Features,

(a) Mountain Ranges
(b) Plateau
(c) Plains

Q.4 Write a short note on the Rain-fall Condition in Pakistan.

Ans: Rain-fall Condition in Pakistan:

In Pakistan, there are two rainy seasons.

1. Monsoon rains in Summer
2. Winter Rain

1. Monsoon Rains in Summer:

An average of 50 inches rain in experienced annually in Murree, Islamabad, Rawalpindi, Jhelum and Sialkot between the months of July and September because of monsoon winds of Summer.

Towards south, it decreases gradually. Southern plain areas include the areas of South Punjab, Sindh and Balochistan receive less than 10 inches of rain annually. Due to it, deserts are found in these areas. It does not rain on Baluchistan Plateau and north-west mountains during summer. Due to it, these are dry mountain ranges.

2. Winter Rain:

It rains in the northern plains during winter because of western winds. But it is' too less to meet our needs. Because of low rain-fall in southern areas, farmers and other people have to face a lot of problems. To meet the requirements of water, it is utmost necessary to construct dams and canals so that agriculture may be developed.

Q.5 Elaborate how does climate affect the human life?

Ans: The Effects of Climate on Human Life:

Climate affects the human life deeply. All the human activities are affected by the climate. All the economic, social, cultural, political and commercial activities, mostly of the people living in any country, depend mostly to a great extent upon the climate.

Effects of Climate in Plain Areas:

There is intensity in climate of the plain areas of Pakistan. It means that summers are hot and winters are cold. This type of climate is very useful for different kinds of crops, vegetables and fruits. Plain areas are made up by the soil that the rivers bring along with them. That's why they are very fertile. These are densely populated areas.

Source of Income:

The income of the people living in plain areas depends upon agriculture and the industry associated with agriculture. The economic condition of the inhabitants is comparatively better. They enjoy better economic circumstances. The scarcity of rain in plain areas is made up with irrigation system by the water of rivers and underground water. The area has the maximum of population. These areas have better facilities of transportation and communication. People enjoy better facilities.

Q.6 Describe the climate effects on Northern and North-Western areas of Pakistan.

Ans: Climate Effects:

The northern and north-western areas of Pakistan are surrounded by mountain ranges. These areas are thousands of metres higher than sea-level. The temperature is lower because of this height in winter, the temperature of mountain areas falls below the freezing point (0°C). It snows frequently. All the activities of the people living here are limited during the winter. People store food items and other necessary commodities before the winter sets.

Source of Income:

Domestic handicrafts are of great, importance. Some people shift their cattle from mountain areas to plain areas as pastures cannot be used due to snow-fall. During summer, these areas are turned into lush green pastures again. The snow begins to melt and small streams and rivulets start flowing. The people living here drive their cattle back to this area. Fanning is the major occupation of the people in summer season.

Economic Activities:

Fruits of various types are produced here. Because of it, economic and commercial activities are revived. Mountain areas are relatively less populate

Reserves of minerals:

Reserves of minerals are also found in these areas. The people of this area are hardworking and sturdy. Tourism prospers due to picturesque scenes and pleasant climate of these areas.

Q.7 Describe the Climate of Desert Areas in Pakistan.

Ans: Climate of Desert Areas:

The climate of desert areas in Pakistan is too hot and dry. There is much difference between day and night temperatures. Heat waves blow during day-time. Dust storms are also experienced. The southern areas of Punjab and northern as well as southern areas of Sindh have specially the characteristics of deserts. The people living here lead hard lives. This area receives very little rainfall. Therefore people have to fetch water from far off distant places. The life is comparatively comfortable in the areas which have canals as a source of water.

Source of Income:

Rearing of sheep and goats is the major source of earning for the people of these areas.

Q.8 Describe the Climate of Balochistan Plateau.

Ans: Climate of Balochistan Plateau:

The climate of Balochistan Plateau is extremely hot during summers and extremely cold during winters. Some areas having high altitude receive snow-fall during winter. This is the driest area of Pakistan. Winter Snow-fall is an important source of the availability of water reservoirs in this area. During summer, water is stored in dales and small rivers. Hence, lakes and seasonal streams are found here.

Use of Kareez:

The rain-water is stored and is carried from one place to another through underground channels called "Kareez". These underground channels are very important because of high temperature in Balochistan. Water cannot evaporate from there. These water channels have made farming possible in this area.

Source of Income:

The income of the people living in this area mostly depends upon rearing of sheep, goats and other cattle. Tins area is rich in producing fruits and mineral resources. The

source of living of people depends upon the availability of local resources.

Q.9 Write Short Note on the Glaciers and Drainage System.

Ans: Glacier:

Temperature remains low on the areas having high altitude. Due to this, snow continues to fall there. When snow is accumulated and compressed over many years, the snow below takes the shape of thickened ice masses and begins to move downhill. It is called Glacier.

Drainage System:

Abundant snow-fall on our mountains gives rise to the gigantic glaciers. They continue melting slowly in summer and keep our rivers and streams flowing throughout the year. They are a source to provide water to our population, agriculture and industry. Our long and unique canal irrigation system owes a great deal to these glaciers.

Name of famous Glaciers:

Siachen, Baltoro, Biafo, Hispar, Rimo and Batura etc. are among huge glaciers of Pakistan.

Q.10 Describe the significance of major forests.

Ans: Vegetation (Forest):

Due to variations in climatic conditions of Pakistan, the following types of forests are round here.

Forest of North-Western Areas:

Some northern and northwestern areas of Pakistan receive more of rain as compared to that of other areas. Evergreen forests are found here. The most important of them are of deodar trees, firs, blue pine and spruce trees (sanobar). High quality timber-yard is available by these trees. Oak, walnut and chestnut trees are found in abundance.

Important Forest Areas:

Murree, Abbotabad, Mansehra, Chitral, Swat and Dir are places full of forests.

Forest of foot-hill Areas:

In the foot-hill areas of the districts of Peshawar, Mardan, Kohat, Attock, Rawalpindi, Jhelum and Gujrat, mostly phulahi, kao, jand, acacia, wild olive and black berry trees are found.

Forest of Quetta and Kallat Divisions of Baluchistan:

In Quetta and Kallat Divisions of Baluchistan, besides thorny bushes there are trees of mazoo, Pine Nuts, black berry and poplar.

Q.11 Describe the importance of forests in plain areas.

Ans: Forests in Plain Areas:

There are some forests in plain areas. They consist of sheesham (The Indian Rosewood Tree), Poplar, mulberry, sumbal, Jamun (Black Plum), dharek and eucalyptus trees. The areas, where these forests are found, include Chhanga Manga, Chicha Watani, Khanewal, Toba Tek Singh, Rakh Ghulaman Thai, Bahawalpur, Tounsa, Sakkur, Kotri and Guddu.

Other Places:

There are forests of Bela along the rivers. Other than these forests, trees can be seen along the National Highways and canals.

Q.12 Define Desert.

Ans: Desert:

The area that receives less than 10 inches of rain-fall annually is called Desert.

Q.13 Describe the significance of Desert in Punjab.

Ans: Desert in Punjab:

The southern east part of Pakistan has desert like characteristics. It encompasses an enormous area. In Punjab, this region starts from Bahawalnagar and spreads towards Bahawalpur and Rahim Yar Khan. It consists of the districts of Sukkar, Khairpur, Sanghar, Mirpur Khas and Tharparkar in Sindh. This desert is called Cholistan or Rohi in the Punjab.

Q.14 Write a note on desert in Sindh.

Ans: Desert in Sindh:

In Sindh this desert is known as Thar and Nara. Due to scarcity of rain-fall, we find desert vegetation here.

Profession:

Most of the people are associated with the profession of rearing goats, sheep and camels.

Source of Irrigation:

This region receives less, rain-fall. Hence, water is the major issue of these people. Rain water is stored in ponds and

it is used for drinking purpose. Some areas are irrigated by canals too.

Q.15 Briefly describe about the second desert of Pakistan.

Ans: The Second Desert of Pakistan:

The second desert of Pakistan is Thai. It is situated between River Jhelum and River Indus. This desert consists of the districts of Mianwali, Layyah, Bhakhar, Khushab and Muzaffargarh.

Source of Irrigation:

Some parts of these districts are irrigated by the canals that have been dug out from River Indus. Besides canals, irrigation is done with tube-wells too. In some areas, arid farming can be seen.

Q.16 Briefly describe about the third desert of Pakistan.

Ans: The Third Desert of Pakistan:

The third desert of Pakistan "Kharan" is situated in Balochistan. Some part of district Chaghi also includes in this desert. It is mostly without any vegetation because it receives an extremely low amount of rain-fall. It is thinly populated. People have to travel for miles to fetch water.

Life Style:

The people depend mostly upon the rain-fall. People cling to age-old traditions. Literacy rate is almost equal to none. This is one of the most backward and undeveloped areas of Pakistan.

Source of income:

Most of the people rear sheep, goats and camels.

Q.17 Describe the importance of Coastal Region of Pakistan.

Ans: Coastal Areas:

Pakistan coastal belt starts from the borders of India in Sindh and stretches towards Iran in the west.

Sea Ports:

This coastal region has important ports. Karachi is the largest and oldest sea-port. The other ports include Port Qasim, and Gwadar etc.

Coastal Highway:

The Government has constructed the Coastal Highway to connect Karachi with Gwadar. It is proving very useful for the commercial activities of the area.

Weather Condition:

It rains mostly in the months of winter on the Makran coast. It is moderate' and dry throughout the year. There is much humidity on the coastal areas of Sindh. There is uncertainty about rain. Forests of mangrove are found to the east of the Delta of the River Indus.

Fish Industry:

They are very important for the fish industry. They also slow down sea-waves. Fishing is the major profession of the people.

Q.18 Write a note on the following:

(a) Humid Mountain Region

(b) Semi Humid Mountain Region

Ans: (a) Humid Mountain Region:

The humid region of central Himalayas includes Hazara, Mansehra, Abbotabad and Murree. This is the most humid region in Pakistan. It receives rainfall both in summer as well as in winter. Most of the rain is caused by the monsoon winds. It is very pleasant in summer. The average temperature here in the month of June is 26°Centigrade.

(b) Semi Humid Mountain Region:

This region includes the northern and backside parts of Himalayas This region does not receive much rain. The Valley of Kashmir receives rains most of all other valleys. Most of the rains are received from February to October. This region includes following areas:

(i) Kashmir valley **(ii)** Chitral valley

(iii) Sawat Valley **(iv)** Kohat

Q.19 Evaluate the significance of Dry and Semi Dry Mountain Region.

Ans: Dry Mountain Region:

Included Areas:

This region includes small hills of Makran and Lasbela, kallat; desert areas of Chaghi and Kharan; northern areas (Skardu, Chitral, Gilgit etc.); South western districts of Khyber

Pkhtunkhwa i.e, Dera Ismail Khan, Tank, Bannu, Kark and Kohat etc.

Rain fall:

They receive less than 12 inches average rainfall annually.

Temperature:

The temperature raises up to 47°C in some areas, whereas the winters are extremely cold. This area is devoid of forests due to extreme weather.

Fruit orchards:

Fruit orchards are found in the areas where water is available. Crops are also cultivated in such areas.

Semi Dry Mountain Region:

Included Areas:

This region includes the mountain ranges of Kohistan-e-Namak, kala Chitta Mountain, Koh-e-Sulaiman and Koh-e-Kirthar.

Rain fall:

The average amount of rain-fall is from 12 inches to 15 inches annually. The summers are hot and long.

Fruit orchards:

This region is famous for fruits especially almond, apple, pomegranate and apricot. Sugarcane, rice, wheat, maize, gram, groundnut, and pulses are major crops of this area.

Exercise(Part-1)

Q.1 Four possible options are given for each statement Mark (✓) on the correct option.

i. The highest peak of Kohistan-e-Hindukush is

(a) Malika Parbat (b) Tirich Mir ✓
(c) Nanga Parbat (d) Everest

ii. In the southern area of Pakistan, there is mountain range of

(a) Himalayas (b) Koh-e-Karakoram
(c) Koh-e-Kirthar ✓ (d) Koh-e-Sufaid

iii. The total area of Pakistan is

(a) 696095 Square Kilometre
(b) 795095 Square Kilometre
(c) 796096 Square Kilometre ✓
(d) 896096 Square Kilometre

iv. To the south of Pakistan lies

(a) bay of Bengal (b) the Arabian Sea ✓
(c) the Persian Gulf (d) Iran

v. How much part of the total area of Pakistan is covered with forests?

(a) 0.5 (b) 5 ✓
(c) 15 (d) 25

vi. Along the borders of Pakistan and China, there is mountain range of

(a) Himalayas (b) Siwalik
(c) Karakoram ✓ (d) Hindukush

vii. Shahrah-e-Resham connects Pakistan with China through

(a) Khunjerab Pass ✓ (b) Khyber Pass
(c) Tochi Pass (d) Gomal Pass

viii. The national animal of Pakistan is

(a) Chakor (b) Markhor ✓
(b) Deer (d) Lion

Ans:

i.	B	ii.	C	iii.	C	iv.	B
v.	B	vi.	C	vii.	A	viii.	B

Q.2 Match Column "A" with Column "B".

Column A	Column B
Durand Line	River
Kareez	Glacier
Biafo	Barrage
Tochi	Pak-Afghan Border
Kotri	Underground water Channels

Ans:

Column A	Column B
Durand Line	Pak-Afghan Border
Kareez	Underground water Channels

Biafo	Glacier
Tochi	River
Kotri	Barrage

Q.3 Fill in the blanks.

i. To the south of Pakistan lies_______. ***(the Arabian Sea)***

ii. Northern mountain ranges make the Northern _______ of Pakistan secured to a great extend. ***(border)***

iii. Pakistan is divided into_______ climatic regions. ***(four)***

iv. River Indus enters Pakistan at__________. ***(Skardu)***

v. The plain area of Pakistan starts from Pothwar and stretches to_________. ***(Mithan kot)***

vi. Desert is the area that receives less than_______ inches of rain-fall annually. ***(10)***

vii. Forests cover______% of the total area in Pakistan. ***(five)***

viii. The level of noise pollution is much higher in____ areas. ***(city)***

ix. Shahrah-e-Resham is situated in_________ mountain range. ***(Koh-e-Karakoram)***

x. The desert of Kharan is in____ province. ***(Balochistan)***

(Part-2)

Q.4 Write the short answers.

i. Write five reasons for decreasing of forests.

Ans: There are many reasons for shortage in forests. Some important reasons are given below:

1. Excessive cutting of trees.
2. Increase in wood timber needs due to increase in population.
3. Increase in salinity and water logging.
4. Diseases of trees.
5. Decrease in rain-fall.
6. Breaking out of fires in forests.
7. Environmental pollution.
8. Shortage in river water.

ii. Describe the location of Pakistan.

Ans: Location of Pakistan:

Pakistan is located between latitudes 23° - and 37° N, and longitudes 61° and 77° E. India lies in the East of Pakistan, China in the North while Afghanistan in the North-west and Iran in the West. The Arabian Sea is in the South of Pakistan.

iii. State five causes of soil pollution.

Ans: Soil Pollution:

Major causes of this pollution are as under:

1. Releasing used water of houses and factories.
2. Spraying pesticides on crops and using chemical fertilizers.
3. Natural disasters such as earthquakes and floods etc.
4. Salinity and water logging.
5. Heaps of domestic and industrial wastage.

iv. In which mountain range Tochi Pass and Gomal Pass are situated?

Ans: This mountain range stretches in the south of River Kurram along the Pak-Afghan border from north to south. Tochi Pass and Gomal Pass are situated in these hills.

v. Write the types of pollution.

Ans: Types of Environmental Pollution

i.	Air Pollution	**ii.**	Water Pollution
iii.	Soil Pollution	**iv.**	Noise Pollution

vi. Write the names of five glaciers located in Pakistan.

Ans: Our long and unique canal irrigation system owes a great deal to these glaciers.

Siachen, Baltoro, Biafo, Hispar, Rimo and Batura etc. are among huge glaciers of Pakistan.

vii. What are the hazards to our environment now-a-days?

Ans: Hazards to our Environment:

Rapidly growing population creates many problems. On one side, we are facing the problem of attainment of self sufficiency in food while on the other side, we are facing rapidly decreasing agricultural resources especially the problem of getting water shortage. Fertile lands are being turned into

barren ones. Today, our environment is facing following major hazards:

a. Salinity and water logging
b. Deforestation
c. Desertification
d. Increase in environmental pollution

viii. Describe five steps taken by the Government to decrease the industrial pollution.

Ans: Five steps taken by the Government:

i. Installation of Tube-Wells:
By installation of tube-wells, the water table goes down. The water obtained by tube-wells brings decrease in water logging.

ii. Cemented Canals:
The banks of canals and water channels are strengthened so that water may not seep into the ground.

iii. Proper Irrigation System:
Introducing proper system of irrigating fields, noise pollution can be decreased.

iv. Establishment of Laboratories:
Steps have been taken for the establishment of laboratories for water and soil testing.

v. Training of Farmers:
Training and counseling of farmers must be carried out.

ix. Which is the famous peak in the Greater Himalayan range?

Ans: It is one of the highest mountain ranges in the world. It is covered with snow throughout, the year. The beautiful valley of Kashmir is located between the Pir Panjal range and The Greater Himalayan Range. The glaciers are found in this region which melt to form rivers. Nanga Parbat is the highest peak of this range.

x. Write the names of five natural regions of Pakistan.

Ans: Natural Region means a region having latitude, relief and structure, climate, vegetation, livestock and ways of living. Pakistan can be divided into the following five natural regions.

1. Plain Region **2.** Desert Region

3. Coastal Region
4. Tropical and Sub tropical Region
5. Dry and semi dry mountain region

xi. What is the importance of Afghanistan and the countries of Central Asia for Pakistan?

Ans: Afghanistan is situated to the North-west of Pakistan. The adjoining border with Afghanistan is called the Durand Line.

In the North-west of Pakistan, there are Central Asian Republics Kazakhstan, Uzbekistan, Tajikistan, Turkmenistan and Kyrgyzstan. All these republics are landlocked. These are located away from the ocean. They own no coast. Therefore, they have to pass through Pakistan in order to access the ocean. Central Asian Republics are rich in oil and gas reserves. They are known for the products of oil and gas in the world.

xii. What steps are being taken by the Government to improve forests?

Ans: Steps Taken By the Government to improve forests:

The Government is striving hard to increase the area of the forests. The Government takes many steps every year. Some of them are given below:

1. Tree plantation campaign is launched twice a year.
2. The Government imports various kinds of seeds. Nurseries are grown with the help of these seeds and plants are provided to the people to create the trend of growing trees.
3. Advertisement campaign is launched through electronic and print media to create awareness among people how important is it to increase the area of forests.

It can be hoped that area of forests would be improved by the steps taken by the Government, but in order to make the plantation campaign more effective and successful, it should be extended to schools and colleges. Strict legislation can also be helpful in preventing the theft of trees.

xiii. Where is Toba Kakar mountain range situated?

Ans: Toba Kakar Mountain Range:

Toba Kakar Mountain Range is situated along the Afghan border to the south of Waziristan Hills. It extends from north-east towards south-west till it ends in the north of Quetta.

Write the answers in detail

Q.5 Evaluate the significance of the location of Pakistan.

Ans: Importance of the Location of Pakistan:

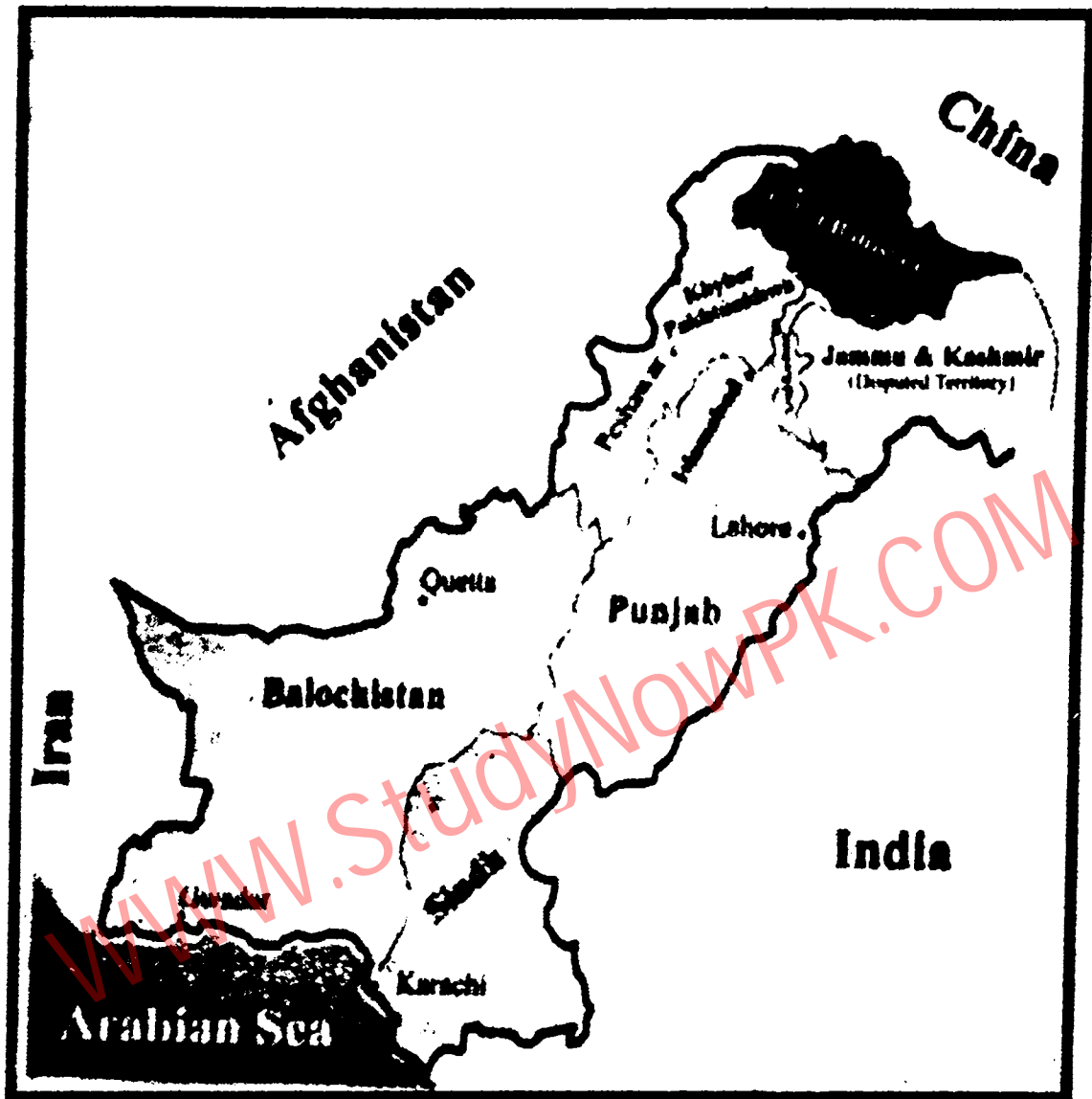
So far as the location of Pakistan is concerned, it occupies specific importance not only in South-Asia but also all over the world. Pakistan is a key source to establish link between East and the West. Following points explain the importance of the location of Pakistan.

i. In the east of Pakistan, there lies India which has the second largest population in the world after China. India is an agricultural as well as industrial country. It is a nuclear power too. We have not been on good terms with India since we got the freedom. Both the countries have fought three wars so far. Because of unfriendly conditions, the region could not make progress and development. Both Pakistan and India, for their defence, are spending a large portion of their budget on weapons of warfare. Both the countries have gone much far in the race of nuclear weapons and missiles. If war is breaks out now, there will be a complete destruction and nobody will gain anything. Kashmir is the main cause of rivalry between Pakistan and India. If India forgoes its obstinate standpoint and both the countries resolve their issues through mutual negotiations, it will bring peace and prosperity to all the people living in this region of South Asia.

ii. Afghanistan is situated to the North-west of Pakistan. The adjoining border with Afghanistan is called the Durand Line.

iii. In the North-west of Pakistan, there are Central Asian Republics Kazakhstan, Uzbekistan, Tajikistan, Turkmenistan and Kyrgyzstan. All these republics are landlocked. These are located away from the ocean. They own no coast. Therefore, they have to pass through Pakistan in order to access the ocean. Central Asian Republics are rich in oil and gas reserves. They are known for the products of oil and gas in the world. These republics are counted among those regions which produce high agriculture yield. Their total population is less than that of Pakistan but they are six times larger than Pakistan with

respect to area. Pakistan has religious, cultural and economic relations with these Islamic States.

Map of the Location of Pakistan

iv. China is located in the north of Pakistan. It has emerged as an important economic force in the world. Shahrah-e-Resham (Karakoram Highway) connects Pakistan with China. This Highway is constructed by Pakistan and China collaborated. The two countries enjoy exceptional relations. China has stood by Pakistan in every hour of trial. Pakistan is also proud of the friendship with China. Many development projects in Pakistan are going on with the support of China. China has always supported Pakistan. Pak-China Friendship is matchless.

v. The Arabian Sea is located in the South of Pakistan. It is the part of the Indian Ocean. Most of the trade between the

East and the West is done through the route of the Indian Ocean Thus, Pakistan has much significance because of its location on an important trade route. The adjoining Muslim countries of the Persian Gulf i.e. Iran, Kuwait, Iraq, Saudi Arabia, Qatar, Behrain, Oman and Arab emirates are linked with Pakistan, through the Arabian Sea. The Arabian Sea has always been the centre of attention among major powers because of the importance of Persian Gulf. Karachi, Port Qasim, Pasni, Gwadar etc. are the important sea-ports of Pakistan.

vi. Our country has established relations with many other countries through the Arabian Sea route. Among them South-east Muslim countries (Indonesia, Malaysia, and Brunei Darussalam), South Asian Muslim countries (Bangladesh, Maldives) and Sri Lanka are included.

Q.6 Give an account of the mountain ranges in Pakistan.

Ans: Mountain Ranges:

The high piece of land that has rocky, uneven and steepy surface is called a mountain. Pakistan has following mountain ranges:

1. Northern Mountain Ranges
2. Central Mountain Ranges
3. Western Mountain Ranges

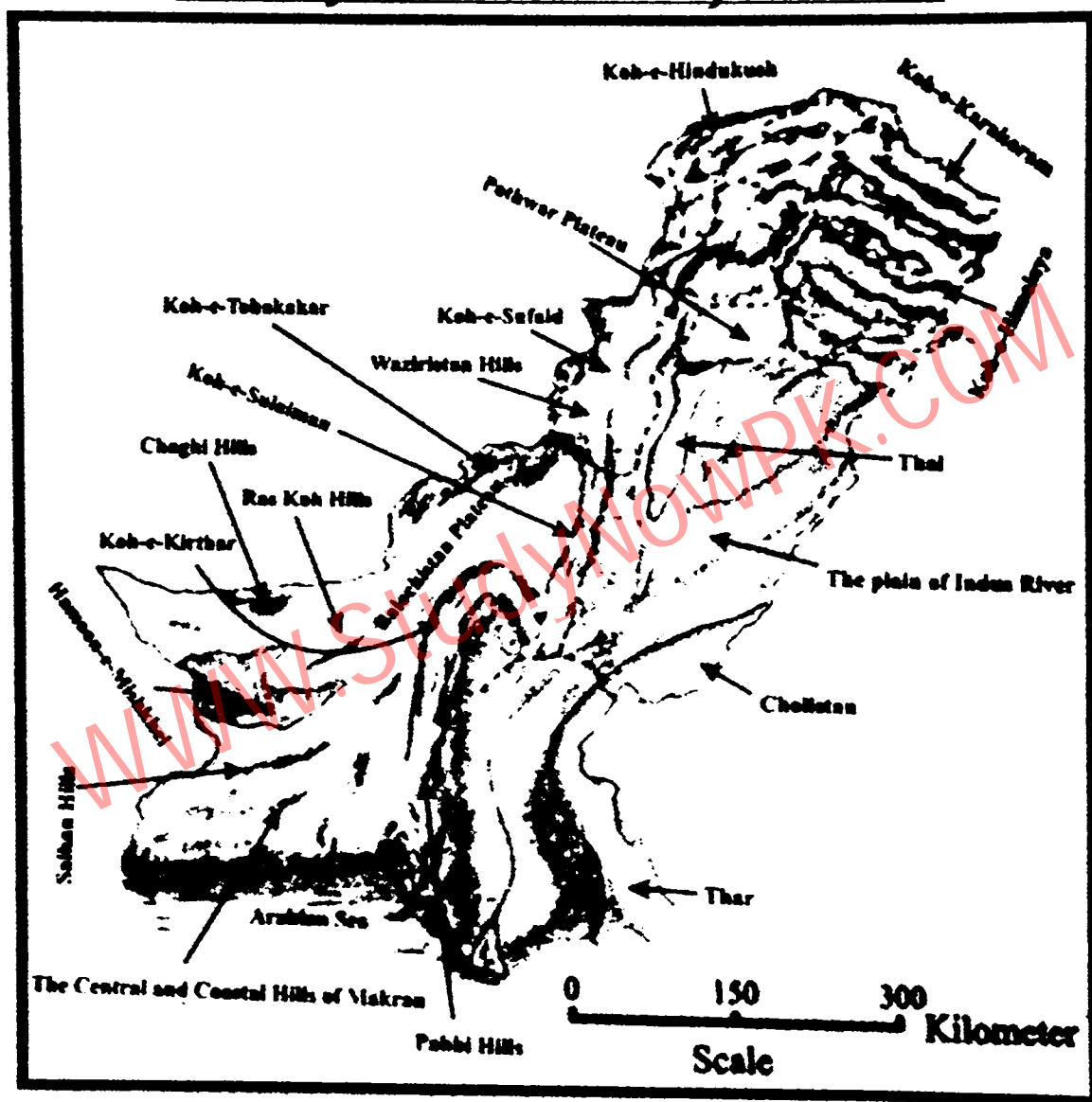
1. Northern Mountain Ranges:

These mountain ranges are located in the north of Pakistan. These mountain ranges make the Northern borders of Pakistan secured to a great extent. They stop the winds coming from the Arabian Sea and Bengal Gulf causing snow-fall and rain. Their peaks are covered with snow throughout the year. This snow is a source of supplying our rivers with water all round the year. We also get precious wood from these mountains. There are many healthy places in this region where people go for tourism. Among these places, Murree, Ayubia, Nathiagali, Kaghan, Lipa Valley, Skardu, Swat Valley, Kalam, Neelam Valley, Bagh, Hunza, Chitral, Chilas and Gilgit are famous.

The Northern mountain ranges include the following ranges:

(i) Sub-Himalayan Range or Siwalik Hills:

This Mountain range is in the east of the River Indus. It is the southern branch of Himalaya which stretches from east to west. It is also called Siwalik Mountain Range. Pabbi Hills are its famous hills which are situated in the south of Hazara and Murree. Their western range is in Pakistan whereas the major part of them is in India.

The Physical Features of Pakistan

(ii) The Lesser Himalayan Range:

The Lesser Himalayan Range lies north of the Sub-Himalayan Range or Siwalik Range. This range stretches from east to west. Pir Panjal is the highest mountain range here. Murree, Ayubia and Nathiagali are the famous resort places of this range. A small part of the Lesser Himalayan range is in

Pakistan while the remaining part of it is situated in occupied Kashmir and in the north of India.

(iii) The Greater Himalayan Range:

It is one of the highest mountain ranges in the world. It is covered with snow throughout, the year. The beautiful valley of Kashmir is located between the Pir Panjal range and The Greater Himalayan Range. The glaciers are found in this region which melt to form rivers. Nanga Parbat is the highest peak of this range.

(iv) Karakoram Range:

Karakoram Range stretches from west to east in Kashmir and Gilgit along with the borders of China. It is in the north of Himalayas. The second highest peak in the world is located in this range. It is called Mt Godwin Austin or K-2. It reaches to a height of 8611 metres. Shahrah-e-Resham, which is also known as Karakoram Highway passes through this range and leads to China via Khunjerab.

(v) The Hindukush Mountains:

The Hindu Kush Mountain Range is located in the North-West of Pakistan. Most of the mountains of this range are in Afghanistan. The highest peak of this range is Tirich Mir.

(vi) Mountains of Swat and Chitral:

Small mountain ranges stretch to the south of the Hindukush range. Between these mountains, there is the Lowari Pass which connects Chitral with Peshawar. It remains closed in the winter due to snow-fall. A tunnel named Lowari Tunnel is constructed here. Through this tunnel, traffic between Chitral and Peshawar runs throughout the year. The Swat River, the Panjkora River (Kunar River) and the Chitral River flow between these mountain ranges.

2. Central Mountain Ranges:

(i) Salt Range:

This mountain range is located, in the south of Pothwar Plateau, between River Jhelum and Indus River. Sakesar is the beautiful place in this range. Deposits of salt, gypsum and coal are found in this range.

(ii) The Sulaiman Mountain Range:

The Sulaiman Mountain Range, stretches from north to south, it starts from south of River Gomal and reaches to the

centre of Pakistan. Takht-e-Sulaiman is the highest peak of the Sulaiman Range,

(iii) Kirthar Mountains:

To the south of Sulaiman Mountains and to the west of Indus River stretches the range of Kirthar Mountains. It is located to the west of the Lower Indus Plain. It consists of low high and barren mountains. Hub River and Lyari River flow from Kirthar towards the Arabian Sea.

3. Western Mountain ranges:

i. Koh-e-Sufaid range:

Koh-e-Sufaid stretches from east to west in the south of River Kabul. Khyber Pass, which is a historic passage between Pakistan and Afghanistan, lies to the north of the Koh-e-Sufaid. *River* Kurram flows in the south of Koh-e-Sufaid.

ii. Waziristan Hills:

This mountain range stretches in the south of River Kurram along the Pak-Afghan border from north to south. Tochi Pass and Gomal Pass are situated in these hills.

iii. Toba Kakar Mountain Range:

Toba Kakar Mountain Range is situated along the Afghan border to the south of Waziristan Hills. It extends from north-east towards south-west till it ends in the north of Quetta.

iv. Chaghi Hills and Ras Koh Hills:

To the west of Pakistan, along the Afghan border, mere lie the Chaghi Hills. Ras Koh Hills are situated in the south of the Chaghi Hills.

v. Saihan Hills:

To the south of Ras Koh, there are Saihan Hills in the province of Baluchistan.

vi. Central Makran Hills:

These hills are situated in Balochistan. The winter season here is extremely cold whereas the summers are mild.

vii. Hills of Makran Coast:

These hills are situated in the west of Saihan Hills. These are low hills.

Q.7 Write notes on the following:

(a) Plateau (b) Plain

Ans: (a) Plateau:

There are two plateaus in Pakistan. They are:

i) Pothwar Plateau ii) Balochistan Plateau

i) Pothwar Plateau:

Pothwar Plateau is situated in the north of Salt Ranges. It is in the middle of River Jhelum and Indus River. Huge reserves of Gypsum, Coal and mineral oil are found in it. River Sawan is an important one of this area. It makes its valley here. This is known as Sawan Valley. The surface of Pothwar Plateau is badly cracked.

ii) Balochistan Plateau:

Balochistan Plateau is located in the west of Sulaiman Range and Kirthar range. Balochistan Plateau is uneven and barren. It receives very low rain fall therefore, this region has desert like characteristics. To the north of this Plateau there arc mountain ranges of Chaghi and Toba kakar. There are lakes with salty water in the western part of the province of Balochistan. Among them, the most famous and the largest one is the Hamoon-e- Mashkhel Lake.

(b) Plain:

A vast, less steepy and comparatively even surface of land is called a plain. Plains of Pakistan can be divided into two parts:

(i) Upper Indus Plain (ii) Lower Indus Plain

(i) Upper Indus Plain:

This plain extends from the south of Pothwar plateau to Mithankot in the Punjab province. If we assume Mithankot a base, where all the rivers of the Punjab join the River Indus, the whole area above Mithankot towards the Punjab will be called Upper Indus Plain. Whereas, the whole area below Mithankot towards Sindh to the point of Thatha will be the Lower Indus Plain.

Towards North, the Upper Indus Plain is high whereas it is steepy towards South. That's why all the large rivers of Pakistan flow from north towards south. To the west of this plain lies the Desert of Thar. This plain is called Punjab i.e. the land of five rivers, because these five rivers irrigate it. From the agricultural point of view, this plain is very fertile. Even before the establishment of Pakistan, the United Punjab was famous for its yield of wheat. The world remembered it as the Home of Grain. Even today, Punjab is playing an important role in meeting the food requirements of the country.

(ii) Lower Indus Plain:

Below Mithan kot, the River Indus forms the shape of a huge river and flows alone till it reaches Thatha. There from it is divided into delta and falls into the Arabian Sea. This whole area is called Lower Indus Plain. To the south-west of this plain lies the Kirthar range whereas the Thar Desert is located to the east of this plain. Like the Upper Indus Plain, the Lower Indus Plain is also very fertile. It is well known for early season vegetables and fruits. Irrigation is done mostly with canals but there is a problem of shortage of canal-water. Tube wells have also been installed, to overcome the shortage of canal-water. But the ground water, being brackish (saltish) here, is much less-as compared to that of Upper Indus Plain. Scarcity of water, and water-logging and salinity are major problems of this Plain. Besides, the delta of the River Indus extends from Thatha to the Arabian Sea. Here, the river flows slowly and is divided into many branches, forming the shape of delta A, before it falls into the sea. That's why this area is called "Deltaic".

Q.8 In how many climatic regions is Pakistan divided? Write the detail of each region.

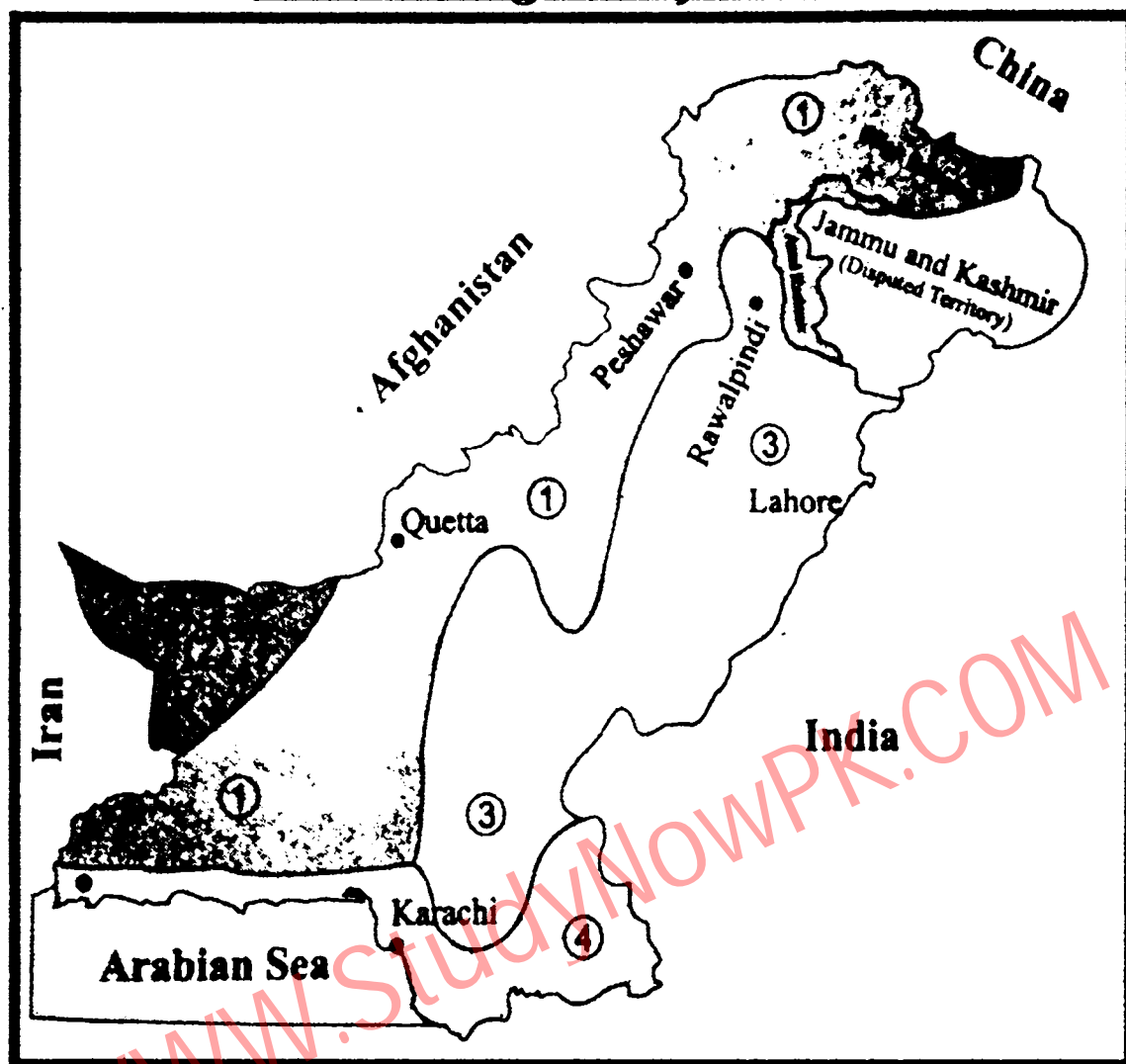
Ans: Climatic Regions of Pakistan:

Pakistan can be divided into the following regions with reference to the climate.

1. Sub -Tropical Continental Highland
2. Sub -Tropical Continental Plateau
3. Sub -Tropical Continental Lowland
4. Tropical Coastland

1. Sub-Tropical Continental Highland:

This climatic region of Pakistan includes northern highland (Outer as well as Central Himalayas), north-western mountain ranges (Chitral, Swat etc.), Western mountain ranges (Waziristan, Zhob and Loralai) and the mountain ranges of Balochistan (Quetta, Sara wan, Central Makran and Jhalawan). The winters are extremely cold here It usually snows. The summer season has moderate temperature whereas rains are received in the end of winter and in the beginning of spring. In some parts of this region, for example Outer Himalayas, Murree and Hazara, rains are experienced all round the year.

Climatic Regions of Pakistan

2. Sub-Tropical Continental Plateau:

This region includes western part of Baluchistan. From May to mid September hot and dusty winds continue to blow. Some rains are received in the months of January and February. The climate of this region is extremely hot and dry in summer. An important characteristic of this region is the dusty winds that blow during the summer season.

3. Sub-tropical Continental Lowland:

This climatic region includes upper Indus plain (the province of Punjab) and lower Indus Plain (the province of Sindh). The summers are extremely hot. Monsoon winds cause heavy rains in northern Punjab in the end of summer season whereas the remaining plain areas receive less rains. The same situation remains during the winter season. Thai and south-eastern deserts are the hottest areas. Very little rains are

received. Wind storms of thunder-storms are experienced in the plain area of Peshawar.

4. Tropical Coastland:

This climatic region includes the coastal areas of Sindh and Balochistan. Very little difference is recorded between daily and annual temperature. During the summer season, breeze blows from sea towards land, high humidity is experienced. The annual average temperature is 32 C. May and June are the hottest months. The coastal areas of Lasbela receive more rainfall during the summer whereas the western part receives more rainfall during winter.

Q.9 Elaborate "How does climate affect the human life"?

Ans: The Effects of Climate on Human Life:

Climate affects the human life deeply. All the human activities are affected by the climate. All the economic, social, cultural, political and commercial activities, mostly of the people living in any country, depend mostly to a great extent upon the climate. There is intensity in climate of the plain areas of Pakistan. It means that summers are hot and winters are cold. This type of climate is very useful for different kinds of crops, vegetables and fruits. Plain areas are made up by the soil that the rivers bring along with them. That's why they are very fertile. These are densely populated areas. The income of the people living in these areas depends upon agriculture and the industry associated with agriculture The economic condition of the inhabitants is comparatively better. They enjoy better economic circumstances. The scarcity of rain in plain areas is made up with irrigation system by the water of rivers and underground water. The area has the maximum of population. These areas have better facilities of transportation and communication. People enjoy better facilities.

i. The northern and north-western areas of Pakistan are surrounded by mountain ranges. These areas are thousands of metres higher than sea-level. The temperature is lower because of this height In winter, the temperature of mountain areas falls below the freezing point (0°C). It snows frequently. All the activities of the people living here are limited during the winter. People store food items and other necessary commodities before the winter sets. Domestic handicrafts are of great,

importance. Some people shift their cattle from mountain areas to plain areas as pastures cannot be used due to snow-fall. During summer, these areas are turned into lush green pastures again. The snow begins to melt and small streams and rivulets start flowing. The people living here drive their cattle back to this area. Fanning is the major occupation of the people in summer season. Fruits of various types are produced here. Because of it, economic and commercial activities are revived. Mountain areas are relatively less populated. Reserves of minerals are also found in these areas. The people of this area are hardworking and sturdy. Tourism prospers due to picturesque scenes and pleasant climate of these areas.

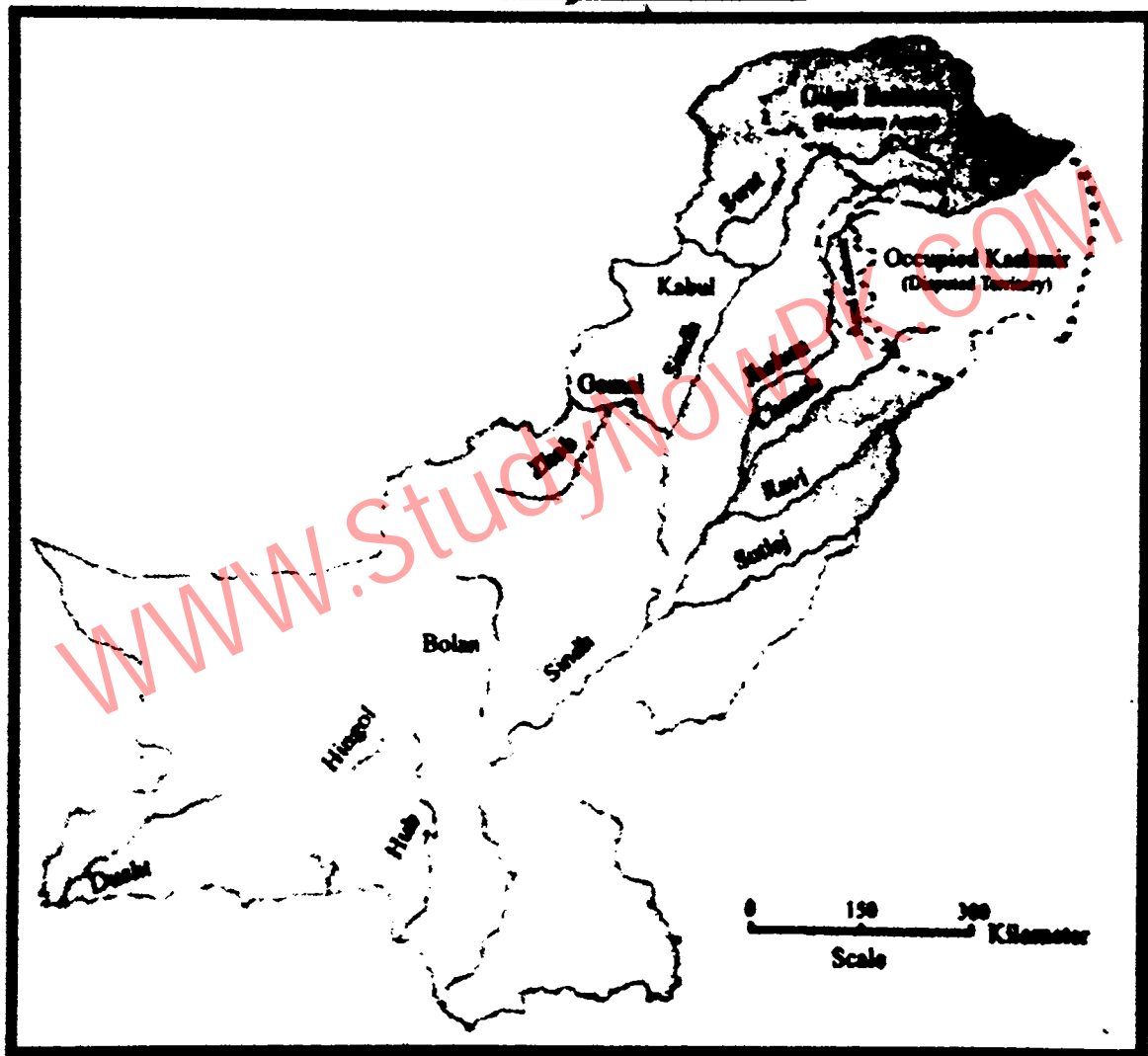
ii. The climate of desert areas in Pakistan is too hot and dry. There is much difference between day and night temperatures. Heat waves blow during day-time. Dust storms are also experienced. The southern areas of Punjab and northern as well as southern areas of Sindh have specially the characteristics of deserts. The people living here lead hard lives. This area receives very little rainfall. Therefore people have to fetch water from far off distant places. The life is comparatively comfortable in the areas which have canals as a source of water. Rearing of sheep and goats is the major source of earning for the people of these areas.

iii. The climate of Balochistan Plateau is extremely hot during summers and extremely cold during winters. Some areas having high altitude receive snow-fall during winter. This is the driest area of Pakistan. Winter Snow-fall is an important source of the availability of water reservoirs in this area. During summer, water is stored in dales and small rivers. Hence, lakes and seasonal streams are found here. The rain-water is stored and is carried from one place to another through underground channels called "Kareez". These underground channels are very important because of high temperature in Balochistan. Water cannot evaporate from there. These water channels have made farming possible in this area. The income of the people living in this area mostly depends upon rearing of sheep, goats and other cattle. This area is rich in producing fruits and mineral resources. The source of living of people depends upon the availability of local resources.

Q.10 What is meant by the drainage system? Write in detail.

Ans: Drainage System (System of the Rivers):

The glaciers in Pakistan start melting in the summer because of increase in the temperature. The water flowing out from these glaciers form the shape of springs and streams. It finally falls into rivers, because soil erosion of glaciers, many fresh water lakes are formed in the mountain areas of Pakistan. They meet the water-needs of the local people.

Rivers of Pakistan

River Indus:

River Indus and its tributaries irrigate Pakistan. Originating in the Northern Mountains near the border of China, the Indus River runs a course through Occupied Kashmir and then enters Pakistan at Skardu, Flowing through the plains of Punjab and Sindh, it falls into the Arabian Sea at Thatha in Sindh.

Tributaries of River Indus:

As it flows through its course, it is joined by several rivers, small and large. These are called tributaries of River Indus. The Eastern tributaries include the rivers Jhelum, Chenab, Ravi and Sutlej. They join the River Indus in the province of Punjab. The Western tributaries include River panjkora, Swat, Kabul, Kurram and Tochi etc.

Q.11 Describe the importance of plain region of Pakistan.

Ans: Plain Region of Pakistan:

Most of the plain region of Pakistan includes the province of the Punjab and Sindh. It is called Upper Indus Plain and Lower Indus Plain. However, some of the plain region lies in Khyber Pakhtunkhwa and Balochistan. We will discuss all of them below:

Plain Region of Punjab:

This region is also known as Upper Indus Plain. It is very fertile. It is made of silt that the rivers have been bringing alongwith them over the years. This region starts from Pothwar and Salt Range and stretches upto Mithan kot. It is the largest cultivated area. Doaba is a piece of land that lies between two rivers. The land of Punjab is spread area between many water doabas. Canals are the main source of irrigation. To meet the needs of the ever increasing population of the country, tube-wells are also used to irrigate the fields. Barrages are constructed on the rivers. Two types of canals, irrigation canals and link canals are dug out from these barrages. Most of barrages and irrigation canals are in the plain region of the Punjab.

Wheat, cotton, sugarcane and maize are the main crops of this region. The orchards of oranges, mangoes and guava are found in a large number. This region is of prime importance from agricultural point of view. It not only meets the food needs of our country but also earns huge foreign exchange by the export of fruits, cotton and rice. The rice of this region is famous throughout the world for its aroma and taste. Industrial development on the basis of agricultural development is another prominent characteristic of this region. The major part of plain region in the Punjab is densely populated. Large cities are

situated in this region such as Lahore, Faisalabad and Multan etc.

Plain Region of Sindh:

This region is also known as Lower Indus Plain. Like the Upper Indus Plain, this region is also very fertile. Thar Desert lies to the east of this region. Irrigation is mostly done with the help of canals but tube-wells are also used for irrigation purposes to make up the deficiency of water. Sakkar Barrage is the largest barrage of this region. Canals are dug out of other two barrages, i.e, Guddu Barrage and Kotri Barrage, also. Wheat, sugarcane, rice and cotton are major crops of this region. Banana, guava and dates of this region are very famous. Karachi and Hyderabad are the major cities in this region. Both of the cities are famous for industries too.

Plain Region of Khyber Pakhtunkhwa and Balochistan:

The plain region of Khyber Pakhtunkhwa mostly consists of the districts of Peshawar, bannu, Lakki Marwat, D.I.Khan and Mardan. Canals are dug out from the Warsak Dam. These canals irrigate the plain region of Peshawar. The region of Mardan is irrigated by the Pahoor High Level Canal. It is dug out from the River Indus. The areas of Bahnu and Lakki Marwat are irrigated by the canal dug out from River Kurram whereas the fields in D. I. Khan are irrigated by Chashma Right Bank Canal.

Balochistan is a dry region. Most of the plain areas of Balochistan are irrigated by two canals dug out from Guddu Barrage. These are Desert and Pat Feeder canals. The shortage of canal water is met with the help of tube-wells or other sources. Balochistan receives comparatively less rain-fall than Khyber Pakhtunkhwa. Wheat, tobacco, sugarcane, maize and rice are major crops of this region.

Q.12 Describe the significance of forests.

Ans: Significance of Forests:

1. The Northern mountain areas receive much rain. This rain water, from mountains, comes down the slopes with great speed and falls into the rivers. The trees on slopes check the speedy flow of water. They help in preventing soil erosion and reduce the velocity of water.

2. Pakistan has limited energy resources. The wood obtained from the forests makes up the deficiency of coal. It is used for fuel.
3. Forests provide different kinds of wood which are used in building and making of furniture and other things.
4. Sports goods are manufactured of forest wood. Pakistan exports these sports goods and earns foreign exchange.
5. Forests make the climate of an area pleasant. They reduce the intensity of temperature.
6. Forests are also a source of rain. They increase the quantity of water vapours in the air that cause rain-fall.
7. The roots of the trees keep the soil intact. They control the erosion of soil. They hold soil by preventing rain from washing and taking the fertile layer of soil away. Hence, the fertility of soil is maintained.
8. If there are no forests, rivers wash away with them a huge quantity of sand and soil. They may fill the dams and artificial lakes. As a result the storage capacity of water in the dams and artificial lakes is decreased and less quantity of water is available for agriculture and industry.
9. Trees are very useful in water-logged and salinity affected areas. The roots of the trees absorb water from the soil. They decrease the underground level of water. As a result, water level goes down.
10. Herbs are found in forests. They are used in the preparation of medicines.
11. Forests promote tourism. There are many places in the north and north-western mountain areas of Pakistan which are worth-seeing and tourist resort places.
12. Forests are very necessary for wild life (birds and animals).
13. Forests provide us with different kinds of fruit and seeds. They also provide fodder for animals.
14. Forests play a key role in the economy of Pakistan.
15. Forests are the source of Lacquer and silk cocoon industry. They also provide us with mushrooms, honey and gum.

16. Raw material of paper and card board industry is obtained from trees.

The government of Pakistan has taken many steps to increase the area of forests. Department of Forestry is trying hard in this connection. Nurseries are established in all the big cities. Plants are available from these nurseries at reasonable prices.

Q.13 Write about the wildlife found in Pakistan and threats to it?

Ans: Wild Life in Pakistan:

The northern part of Pakistan is surrounded by mountains on three sides. These mountains include karakoram, the Himalayas and Hindukush. Snow Leopard, Black Bear, Brown Bear, Wolf, Black Hare, Markhor, Bharal (Himalayan blue sheep), Wild Goat (Himalayan Tahr), Marcopolo Sheep, Deer and Partridge can be seen on the peaks of these mountains. The number of snow leopard, Marcopolo Sheep and Brown Bear is decreasing rapidly. The World Wild Life has declared these animals as endangered species.

i. On less high mountain slopes, monkeys, red fox, black deer, leopard, partridge, chakor can be seen. Forests are in abundance in Pothwar Plateau, Salt Range and Kala Chitta Mountain. Numerous wild animals are found in these forests. They include Goat Antelope, chinkara deer, partridge, pea-cock, chakor and other local birds.

ii. The plain areas of Pakistan are used for agricultural purposes. That's why forests and wild life found on plains are getting shrunk. Jackals, hyenas, mongoose and wolves are found in these areas even today.

iii. Chinkara Deer and peacocks are found in desert areas.

iv. Dry and barren mountains of Balochistan are habitations of Markhor, wild sheep, partridge, chakor and various kinds of wild cats.

v. Among hunting birds, falcon, hawk and Kestrel are commonly found in Pakistan. Other than these birds, many seasonal birds migrate from Siberia and other cold areas to the lakes of Pakistan. When the winter is over, these birds return to their original areas. Markhor is the national animal of Pakistan whereas Chakor is the national bird of Pakistan. Wild life adds

to the beauty of a country. Moreover, they are helpful in maintaining the natural balance.

vi. Allah Almighty has blessed Pakistan with a variety of wildlife.
Following are the reasons of continuous decrease in the growth and reproduction of wildlife.

(i) Illegal Hunting
(ii) Poor Planning
(iii) Continuous Increase in Human Population
(iv) Deforestation
(v) Shortage of water
(vi) Shortage of fodder due to increase in the number of domestic animals
(vii) Disappearance of wild sanctuaries

Q.14 What are the environmental hazards to our country? Write note on types of pollution.

Ans: Major Environmental Hazards and their Remedies

Environment:

All the things and factors around us that affect us directly are called environment. It includes physical features of land, climate, soil, vegetation and other factors. Economic, political, social, religious, financial, and all other activities which he performs in a specific area are under the influence of his or her environment.

Hazards to Human Environment:

Rapidly growing population creates many problems. On one side, we are facing the problem of attainment of self sufficiency in food while on the other side, we are facing rapidly decreasing agricultural resources especially the problem of getting water shortage. Fertile lands are being turned into barren ones. We must have knowledge of all these hazards. We must evaluate them and we must find some adequate solution to eradicate these hazards. Today, our environment is facing following major hazards:

1. Salinity and water logging
2. Deforestation
3. Desertification
4. Increase in environmental pollution

1. Salinity and Water Logging:

The excess of underground water gives rise to water logging whereas salinity is caused by lack of underground water. At present, about 20 million acres of land in Pakistan is suffering from salinity and water logging. It is not only affecting the fertility of soil and we are not getting the desired yield from the crops but environmental pollution is also increasing.

Causes of Salinity and Water Logging:

Following are the major causes of salinity and water logging:

- **i.** Seepage of canal water into ground
- **ii.** Uneven fields
- **iii.** Old and traditional methods of irrigation
- **iv.** Repetition of same crops

Measures taken by the Government to control the problems of salinity and water logging:

The Government of Pakistan has taken following measures to control the problems of salinity and water logging:

1. By installation of tube-wells, the water table goes down. The water obtained by tube-wells brings decrease in water logging.
2. The banks of canals and water channels are strengthened so that water may not seep into the ground.
3. Introducing proper system of irrigating fields
4. Establishment of laboratories for water and soil testing
5. Training and counseling of farmers

2. Deforestation:

For mild climate in a country, it is necessary that 20 to 25 per cent of its total area consists of forests. But in our country there are forests only on 5 percent of its total area. No increase has been seen in the area of forests since long. There are many reasons for shortage in forests. Some important reasons are given below:

1. Excessive cutting of trees.
2. Increase in wood timber needs due to increase in population.
3. Increase in salinity and water logging.
4. Diseases of trees.

5. Decrease in rain-fall.
6. Breaking out of fires in forests.
7. Environmental pollution.
8. Shortage in river water.

Decrease in forests gives rise to the following problems:

(i) Decrease in the income of the government.
(ii) Increase in soil erosion,.
(iii) Climatic changes.
(iv) Decrease in water storage capacity of dams due to sedimentation,
(v) Decrease in wildlife.
(vi) Deterioration in environmental beauty and attraction,
(vii) Increase in environmental pollution

Steps Taken By the Government:

The Government is striving hard to increase the area of the forests. The Government takes many steps every year. Some of them are given below:

1. Tree plantation campaign is launched twice a year.
2. The Government imports various kinds of seeds. Nurseries are grown with the help of these seeds and plants are provided to the people to create the trend of growing trees.
3. Advertisement campaign is launched through electronic and print media to create awareness among people how important is it to increase the area of forests. It can be hoped that area of forests would be improved by the steps taken by the Government, but in order to make the plantation campaign more effective and successful, it should be extended to schools and colleges. Strict legislation can also be helpful in preventing the theft of trees.

3. Desertification:

Allah Almighty has blessed Pakistan with the wealth of fertile land but the fertile land is changing into deserts. Following are some of the important reasons of this decrease:

i. When we grow same crops on a piece of land repeatedly, it lessens its fertility. Due to it, the land becomes barren and turns into desert.
ii. Due to excessive grazing in the fields, the vegetation is uprooted and it changes land into desert.

iii. The use of poor methods of cultivation; cutting of trees; rapidly increasing soil erosion are also causes of desertification.

iv. Salinity, water logging and fast growing population are also a cause of turning natural land into deserts.

v. When forests are cut down to construct buildings, factories and roads, the natural land suffers a lot.

vi. When natural land is not properly cared for, it turns into deserts.

4. Environmental pollution and its Types Pollution:

Pollution is the introduction of contaminants into a natural environment that causes changes in many ways. Pure and natural environment is inevitable for proper growth of all living organisms on the earth. The increase in human population is directly proportional to the increase of human needs of life. It means the more human population; the more human needs will be there. This is creating problems like environmental pollution.

Types of Environmental Pollution:

- i. Air Pollution
- ii. Water Pollution
- iii. Soil Pollution
- iv. Noise Pollution

i. Air Pollution:

Pure air is essential for all the creatures and vegetations. But with every passing day, it is becoming harder and harder to get pure air. Some important causes of air pollution are given below:

(a) Smoke:

It includes the smoke rising from the factories, houses, vehicles, brick kilns, fire and cigarettes.

(b) Harmful Gases:

These include chemical fertilizers, pesticides, insecticides sprayed at home and such gases coming out of factories and vehicles are injurious to health.

(c) Dust:

It includes winds, cyclones and small dust particles that are blown into the air.

Effects of Air Pollution:

The temperature of the earth is increasing. It is also feared that such climatic changes may occur as can have serious harmful effects on human beings, animals and crops.

ii. Water Pollution:

Like air, water is also an essential element for life. Although three fourth of our earth is covered with water, yet according to a research, only 3 percent of it is drinkable. Day by day, water is becoming polluted. Some important causes of this pollution are as under:

1. The polluted water of houses and industries is released into rivers and canals. It has biocidal effect on crops as well as aquatic life.
2. The polluted water of the houses, through sewerage system, seeps into the ground and pollutes the underground water.
3. The drainage water is released into rives and canals. It pollutes the water.
4. When pesticides are sprayed on crops, they are absorbed into the ground. This also makes the underground water polluted.
5. Various kinds of chemical fertilizers are used for agricultural purposes. They are absorbed into the ground to make underground water polluted.

Effects of Water Pollution:

Water pollution is increasing the diseases in the open areas. The number of patients is increasing day by day because people are suffering from the diseases caused by water pollution such as cholera, hepatitis, typhoid, skin diseases, eye diseases and many other diseases. Water pollution is not only harmful to human beings but also to the aquatic life. It may affect the income of the people
associated with fishing.

iii. Soil Pollution:

Major causes of this pollution are as under:

1. Releasing used water of houses and factories.
2. Spraying pesticides on crops and using chemical fertilizers.
3. Natural disasters such as earthquakes and floods etc.

4. Salinity and water logging.
5. Heaps of domestic and industrial wastage.

Effects of Soil Pollution:

Soil pollution may pose a serious threat to the food production. The world may suffer for the shortage of food. Fast increasing soil pollution is much harmful to the crops, forests and wildlife.

iv. Noise Pollution:

Un-necessary and unwanted sound is called noise. The noise produced by buses, wagons, cars, rikshaws, aircrafts, drums, hawkers, loud-speakers, different types of horns, machines and other types of noise are increasing noise pollution day by day. This type of pollution is more in cities as compared to villages.

Effects of Noise Pollution:

Noise affects our faculties of hearing, thinking and working. Noise pollution has negative effects on human health. It may cause high blood pressure, anxiety, rashness and headache etc.

Q.15 Explain in how many temperature regions Pakistan is divided?

Ans: Regions of Pakistan with Reference to Temperature:

Pakistan is divided into four regions with reference to different land features.

The four regions are as follows:

1) The North and North-West Mountainous region
2) The Upper Indus Plain
3) The Coastal Area of Lower Indus Valley
4) The Plateau of Balochistan

1. The North and North-Western Mountainous region:

The winters are extremely cold in the north and northern-west areas of Pakistan. The temperature falls below the freezing-point. For example, the average temperature of Skardu in the month of January is below freezing-point. In most of the areas, it snows heavily and it is extremely cold. However, the summers are pleasant.

2. The Upper Indus Plain:

The Upper Indus valley has a specific land climate. The plain areas are too hot during the summer. Heat-waves appear

during day-time in the months of May, June and July. Occasionally it rains alongwith winds. June is the hottest month. Sometimes, the temperature exceeds 50°C. However, during the winters', the temperature decreases and the weather becomes pleasant

3. The Coastal Area of Lower Indus Valley:

In the coastal areas of Pakistan, land breezes and sea breezes decrease the intensity of heat. Due to this factor, the summers in these areas are not extreme. The average temperature is about 32°C. These areas experience rare cold weather.

4. The Plateau of Balochistan:

During winters, this region is extremely cold. However, during summers, the temperature is much higher as compared to that of northern hilly areas. The Plateau of Balochistan has the areas like Sibbi where the temperature in summer rises to an unbearable degree. Sometimes, when the winds coming from north reach Balochistan, they cause extremely cold weather.

Q.16 Indicate the hurdles in protecting water, soil, vegetation and wildlife.

Ans: Hurdles in protecting water, Soil, Vegetation and Wildlife:

i. Water:

1. Underground water resources are decreasing due to unnecessary use of water. It may cause problems like unavailability of water in future.
2. Traditional and old methods of irrigation and farming are wasting water. Farmers should be trained as how to use water.
3. New water reservoirs (dams etc.) are not constructed. It is causing massive water shortage and water wastage.
4. While irrigating fields, a huge amount of water is wasted because canals and water channels are not cemented.
5. We have no proper system of water storage. As a result, a huge quantity of water goes unused and finally falls into the sea.

ii. Soil:

1. The population of our country is increasing rapidly, whereas cultivated area is decreasing.
2. Salinity and water logging are affecting our soil very badly.
3. Old and traditional methods of farming are used. It is not possible to increase the average yield of crops by using these methods.
4. The fertility of soil decreases because same crops are grown repeatedly.
5. Industrial and domestic wastage is affecting our soil,

iii. Vegetations:

1. Unnecessary cutting of trees is resulting in decrease of forests.
2. Lack of rain-fall is causing problems in growing forests.
3. Increasing saline and water logging are decreasing the area of forests.
4. Diseases of trees are also a cause of forests destruction.
5. Environmental pollution is affecting the forests badly.

iv. Wildlife:

1. Illegal hunting of wild animals and birds may cause decline in the population of wildlife.
2. Rapidly depleting water resources are affecting wildlife.
3. Cutting down forests is also affecting wildlife.
4. Rapid growth in human population is also having negative effects on wildlife.
5. The number of domestic animals is increasing. It is causing decrease in pastures. So the wildlife is affected.

Additional MCQs

i. Pakistan and India have fought ______ wars so far.

(a) two (b) three ✓
(c) four (d) five

ii. ______ is the main cause of rivalry between Pakistan and India.

(a) Kashmir ✓ (b) Kasur
(b) Narowal (d) Gilgit

iii. **Afghanistan is situated to the North-west of Pakistan.**
(a) East (b) East-west
(c) North-west ✓ (d) North

iv. **The adjoining border with Afghanistan is called the_______.**
(a) Line of Control (b) Boundary Line
(c) Pak-Afghan Line (d) Durand Line ✓

v. **China is located in the _______of Pakistan.**
(a) East (b) West
(c) South (d) North ✓

vi. **_______connects Pakistan with China.**
(a) Motorway (b) Shahrah-e-Resham ✓
(c) Indus High way (d) National High way

vii. **The Arabian Sea is located in the ________of Pakistan.**
(a) East (b) West
(c) South ✓ (d) North

viii. **________Mountain Range is situated along the Afghan border to the south of Waziristan Hills.**
(a) Himalayan Range (b) Toba Kakar ✓
(c) Karakoram Range (d) Salt Range

ix. **Central Makran Hills are situated in_________.**
(a) Afghanistan (b) Balochistan ✓
(c) Swat (d) Chitral

x. **There are_______ plateaus in Pakistan.**
(a) five (b) six
(c) two ✓ (d) three

xi. **Pakistan is divided into _______regions with reference to different land features.**
(a) four ✓ (b) five
(c) six (d) seven

xii. **Pakistan is divided into________ major parts with respect of Physical feature.**
(a) three ✓ (b) four
(c) five (d) six

xiii. Through silk route Pakistan is connected to:
(a) India (b) Iran
(c) Afghanistan (d) China ✓

xiv. Khyber Pass is situated in :
(a) Hindukush (b) Koh-e-Sufaid ✓
(c) Hamalaya (d) Karakoram

xv. There are ___________ plateaus in Pakistan.
(a) Two ✓ (b) three
(c) four (d) five

xvi. The length of coastal area of Pakistan is _______.
(a) 700 km ✓ (b) 800 km
(c) 900 km (d) 600 km

xvii. _______is the desert area of Bahawalpur.
(a) Thar ✓ (b) Sandy Area
(c) Cholistan (d) Inhabited Area

xviii. The longest river of Pakistan is:
(a) Ravi (b) Jhelum
(c) Sutlej (d) Indus ✓

xix. The desert of Thar lies in the province of :
(a) Punjab ✓ (b) Sindh
(c) KPK (d) Balochistan

xx. The ratio of forests is only on _______percent of its total area.
(a) 5 ✓ (b) 10
(c) 15 (d) 20

xxi. Which range of mountain links Pakistan with China?
(a) Hindu Kush Range (b) Kirthar Range
(c) Pamir Range (d) Karakoram Range✓

Answers

i.	**B**	**ii.**	**A**	**iii.**	**C**	**iv.**	**D**	**v.**	**D**
vi.	**B**	**vii.**	**C**	**viii.**	**B**	**ix.**	**B**	**x.**	**C**
xi.	**A**	**xii.**	**A**	**xiii.**	**D**	**xiv.**	**B**	**xv.**	**A**
xvi.	**A**	**xvii.**	**A**	**xviii.**	**D**	**xix.**	**A**	**xx.**	**A**
xxi.	**D**								